P/C EVALUATION

ABRASIVE BLASTING MACHINE & DUST COLLECTOR

APPLICANT'S NAME: INDUSTRIAL CONTAINER SERVICES-CA LLC

COMPANY ID: 134018

MAILING ADDRESS: 1051 UNION ST., MONTEBELLO, CA 90640-6526

EQUIPMENT ADDRESS: 1051 UNION ST., MONTEBELLO, CA 90640-6526

EQUIPMENT DESCRIPTION:

Application No. 502347

TITLE V REVISION, DE MINIMUS SIGNIFICANT

Application No. 502348 - PC, new

ABRASIVE BLASTING MACHINE, LID CLEANING WHEELABRATOR, MODEL 2, WITH TWO 20 HP IMPELLER WHEELS.

Application No. 502349 - PC, new

AIR POLLUTION CONTROL SYSTEM (STEEL SHOT), CONSISTING OF:

1. DUST COLLECTOR, TORIT MANUFACTURING, MODEL DFT 3-18, 6'-4" W. X 6'-8" L. X 13'-3' H. WITH NINE 12" DIA. X 24" L. CARTRIDGE FILTERS, 1710 SQ. FT. ACTUAL FILTER AREA, AND A PULSE JET CLEANING SYSTEM.

2. EXHAUST SYSTEM WITH ONE 30 H.P. BLOWER VENTING A LID ABRASIVE BLASTING SYSTEM.

Application No. 507222 – PC, change of condition, previous P/O F55690, A/N 406794

ABRASIVE BLASTING MACHINE, DRUM CLEANING, WHEELABRATOR, SERIAL NO. A-80198, WITH THREE 20-HP IMPELLER WHEELS, ONE 1-HP SPINNER. ONE 1-HP ROTATING WHEEL AND ONE ½ -HP DRUM ROTATOR.

Application No. 507223 – PC, change of condition, previous P/O F55694, A/N 406773

ABRASIVE BLASTING MACHINE, DRUM CLEANING, WHEELABRATOR, MODEL 3 W/A, SERIAL NO. A122376, WITH THREE 20-HP IMPELLER WHEELS, ONE 3-HP TABLE DRIVE AND TWO 1-HP SPINNERS.

Application No. 507224 – PC, change of condition, previous P/O F55693, A/N 406797

ABRASIVE BLASTING MACHINE, LID CLEANING, WHEELABRATOR, NO. 1-A MULTI-TABLE, WITH ONE 15-HP IMPELLER WHEEL, ONE 1-HP TABLE DRIVE AND ONE ½ -HP SPINNER.

BACKGROUND:

Industrial Container is in the business of refinishing drums. The facility submitted applications for a new Wheelabrator abrasive blasting machine to be vented to a new cartridge filter baghouse. The facility has three similar abrasive blasting machines and dust collectors installed in the facility for cleaning drums and drum lids. This equipment addition is to make the process more expedient and as a back-up for the existing lid cleaning abrasive blasting system. The facility has two existing drum blasters, two dust collectors and one lid blaster.

The facility requested to create a PM_{10} emission bubble based on the three existing abrasive blasting systems. Applications for change of conditions were submitted for existing abrasive blasting machines to add the PM10 bubble conditions. One drum blaster (P/O F55694) and one lid blaster (P/O F55693) are vented to dust collector (P/O F55688) and the other drum blaster (P/O F55690) is vented to dust collector (P/O F55691). There is no change in this configuration or the equipment. The new lid blaster under A/N 502349 will be vented to the new dust collector under A/N 502348.

Following is a summary of the application history for the abrasive blasting systems.

Appl. no.	Equipment	Prev. P/O and A/N	Prev. P/O and A/N under previous fac. ID 118800	Prev. P/O and A/N under previous fac. ID 15490; (permit issue date)
507222	Drum blaster	F55690/406794	F20092/351245	M50748/140566 (06/1986)
507223	Drum blaster	F55694/406773	F20090/351247	P28467/A49426 (11/68)
507224	Lid blaster	F55693/406797	F20108/351241	P28466/A49425 (11/68)
-	Dust collector	F55688/406792	F20089/351248	P28468/A49427 (11/68)
-	Dust collector	F55691/406795	F20093/351244	M50759/139190 (06/86)

This is a Title V facility. This is the 1st revision to the initial Title V permit issued on August 15, 2005. A proposed revision was sent to EPA on 12/2/2005 to include a change of condition on Oven 8a (A/N 439596) issued as a command and control permit to construct on 6/8/2005 after the proposed initial Title V was sent to EPA, so it was not included in the initial Title V permit when it was issued. A Title V revision application was never submitted and the engineer previously handling the application transferred to another team; as a result, the initial TV was not revised to include this change of condition for Oven 8a. Therefore, this change of condition for the oven under A/N 439596 will be included in this revision to replace the previous oven 8a P/C in the initial TV facility permit under A/N 420878.

The facility has also requested to change the permit unit description for the two drum blasters under A/Ns 507222 and 507223. The original permits described the equipment as having one 30 HP and two 15 HP impeller wheels each, but it should have been listed as three 20 HP impeller wheels each. This equipment description change will also be reflected in these applications.

There is one NOV issued in September 2009 for late submittal of 500-SAM due 2/28/09 and late submittal of 500-ACC due 3/1/09 (semi-annual and annual TV reports). There are no other NOV, NC or complaints on file in the last two years.

PROCESS DESCRIPTION:

Metal drums and lids are cleaned by sandblasting the parts in the abrasive blasting machine. These drum blasters and lid blasters are made by Wheelabrator. In these blasting machines, revolving wheels (impellers) shoot the blasting media onto the objects, in this case either drums or lids that are to be cleaned. Exhaust from the abrasive blasting machines is vented to the dust collectors to control particulate emissions during the blasting process. The cleaned drums and lids are subsequently painted and dried in spray booths and ovens at this facility.

OPERATING HOURS:

Average: 16 hrs/day, 6 days/week, 52 weeks/year.
Maximum: 24 hrs/day, 7 days/week, 52 weeks/year.

EMISSION CALCULATIONS:

A March 4, 1980 District memo from Sr. Engineer Joe Tramma indicates that the PM emission factor for Wheelabrator type abrasive blasting systems is 0.3 lbs/wheel horsepower-hr. This factor refers to the horse power of the rotating wheels only. The following table summarizes the emissions based on the wheel horse power for the existing equipment. The existing abrasive blasting equipment had no conditions limiting operation parameters. The existing drum blaster (F55694) and lid blaster (F55693) are vented to dust collector (F55688) and drum blaster (F55690) is vented to dust collector (F55691). The control efficiency of the dust collectors is assumed to be 99%. Assume PM_{10} = 50% PM.

Appl. no.	Prev. appl. no.	Total wheel HP	PM emissions, lbs/hr		PM10 emissions, lbs/hrR2
			R1	R2	
507222-Drum cleaner	F55690/406794	60	18	0.18	0.09
507223-Drum cleaner	F55694/406773	60	18	0.18	0.09
507224-Lid cleaner	F55693/406797	15	4.5	0.045	0.0225
Total					0.2025

A monthly combined PM10 emission limit of 145 lbs (0.2025 lbs/hr x 24 hrs/day x 30 days/month) shall be imposed on the four Wheelabrator abrasive blasting machines combined operating under A/Ns 502349, 507222, 507223 and 507224. The facility will install timers on all the Wheelabrator

machines, wired so that the meter is counting operating time whenever abrasive is flowing. Additional conditions for record keeping will also be imposed on these permits.

A/N 502348: Lid blaster and A/N 502349: Dust collector

Abrasive Material:	Low carbon steel; Density = 487 lbs/cu. Ft (from facility)
Abrasive Emission Factor:	0.3 lbs per impeller horse power -hr
Impeller wheel HP	2@20 HP = 40 HP total
Blower rating, HP:	30-HP
CFM:	10,000 CFM
No. Of Filters:	9 Cartridges (1710 sq. ft.)
Filter Cleaning Method:	Pulse Jet
Dust Collector Efficiency:	99%
Operating Schedule	
Average:	16 hrs/day, 6 days/wk, 52 wks/yr
Maximum:	24 hrs/day, 7 days/wk, 52 wks/yr

1. Uncontrolled particulate emissions (R1)

$R_{1(Maximum)}$ = 40 hp x 0.3 lbs/hp-hr
= 12 lbs/hr

2. Controlled particulate emissions (R2)

$R_{2(Maximum)}$ = 40 hp x 0.3 lbs/hp-hr x (1- 0.99)
= 0.12 lb/hr

PM_{10} lb/day = 0.5 x PM = 0.12 x 0.5 = 0.06 lbs/hr
PM_{10} lb/hr = .06 lbs/hr x 24 hrs/day = 1.4 lbs/day

Exhaust Air Particulate Emission Concentration (PC) PM

PC = (R_2 x 7,000 grains/lb) ÷ (CFM x 60 min/hr)
= (0.12 lb/hr x 7000 grains/lb) ÷ (10,000 CFM x 60 min/hr)
= 0.0014 grain/cf

3. Air-to-Cloth Ratio (A/C)

a. Filter Area = 1710 sq. ft.

b. A/C = Blower CFM ÷ Filter Area
= 10,000 CFM ÷ 1710 sq. ft.
= 5.84:1

	Recommended	Actual	Compliance
A/C Ratio :	≤8.0:1	5.84:1	Yes
Bag Shaker (> 400 ft^2 filter):	Pulse Jet	Pulse Jet	Yes
Closed Container :	Yes	Yes	Yes
Pressure Gauge :	Yes	Yes	Yes

RULES EVALUATION:

RULE 212 (c)(1) The new abrasive blasting machine and the dust collector are not installed yet and will have emissions of 1.4 lb/day PM_{10}. There is no emission increase from the 3 existing blasting machines. This facility is not located within 1000 ft of a school, therefore public notice is not required.

(c)(2) There is no emission increase from this facility as a result of this project, since a PM_{10} group cap is being established based on the existing abrasive blasting equipment, therefore public notice is not required.

(c)(3) There is no increase in risk from this facility as a result of this project therefore public notice is not required.

(g) The maximum emissions from this equipment are less than 2 lbs/day which is less than 30 lbs/day of PM_{10}, public notice is not required.

RULE 401 Visible emissions are not expected with proper maintenance and operation of this equipment. There have been no complaints or NOV/NC for visible emissions from similar equipment at this facility in the last two years. Compliance is expected.

RULE 402 Operation of the equipment is not expected to create a nuisance. . There have been no nuisance complaints and no Notices of Violation or Notices to Comply for this facility in the past two years. Compliance with this rule is expected

RULE 404 Particulate discharge is below the limit in Table 404(a). Compliance with this rule is expected.

System	CFM	Allowed gr/cu ft	Actual Gr/cu.ft	Compliance
Steel shot lid blaster	10000	0.0792	0.0014	yes

RULE 405 Particulate discharge is below the limit in Table 405(a). Compliance with this rule is expected.

System	Process Wt lbs/hr	Discharge rate lbs/hr		Compliance
		Allowed	Actual	
Steel shot lid blaster	487	1.642	0.12	yes

REG. XIII Rule 1303(a):The dust collector is BACT for the abrasive blasting machine.

Rule 1303(b)(1): Modeling is not required. The PM_{10} emissions are less than 0.41 lb/hr per Appendix A, Table A-1 for the new lid blaster. There is no emission increase in PM_{10} from the three existing abrasive blasting machines as a result of these change of condition applications.

Rule 1303(b)(2): Offset. There is no emission increase from the facility as a result of this project. A PM_{10} group emission cap is being established from the existing abrasive machines. No offsets are required.

Rule 1303(b)(4): This facility will comply with all applicable rules and regulations of the District.

RULE 1401 There are no Rule 1401 compounds emitted from these abrasive blasting operations, as all the lids and drums are first sent to burn-off furnace to burn off paint. After this process, the lids and drums are blasted to remove ash and residue from the burn-off process. Compliance is expected.

REG XXX Evaluation:

This facility is not in the RECLAIM program. The proposed project is considered as a "de minimis significant permit revision" to the Title V permit for this facility.

Rule 3000(b)(6) defines a "de minimis significant permit revision" as any Title V permit revision where the cumulative emission increases of non-RECLAIM pollutants or hazardous air pollutants (HAPs) from these permit revisions during the term of the permit are not greater than any of the following emission threshold levels:

Air Contaminant	Daily Maximum (lbs/day)
HAP	30
VOC	30
NOx	40
PM10	30
SOx	60
CO	220

To determine if a project is considered as a "de minimis significant permit revision" for non-RECLAIM pollutants or HAPs, emission increases for non-RECLAIM pollutants or HAPs resulting from all permit revisions that are made after the issuance of the initial Title V permit shall be accumulated and compared to the above threshold levels. This proposed project is the 1st permit revision to the initial Title V permit issued to this facility on August 15, 2005. The following table summarizes the cumulative emission increases resulting from all permit revisions since the initial Title V permit was issued:

1st Revision	HAP	VOC	NO_x	PM_{10}	SO_x	CO
Install a new lid abrasive blasting machine vented to a new dust collector (P/C - A/Ns 502348, 502349)	0	0	0	0	0	0
C/C on three existing abrasive blasting machines to add PM10 emission cap (bubble) and correct the equipment description (P/C-A/Ns 507222-24)	0	0	0	0	0	0
C/C on Oven 8a – P/C (previously issued command and control P/C then submitted to EPA on 12/2/2005, but TV facility permit never revised) (P/C-A/N 439596)	0	0	10	0	0	0
Cumulative Total	0	0	10	0	0	0
Maximum Daily	30	30	40	30	60	220

Since the cumulative emission increases resulting from all permit revisions are not greater than any of the emission threshold levels, this proposed project is considered as a "de minimis significant permit revision".

RECOMMENDATION

The proposed project is expected to comply with all applicable District Rules and Regulations. Since the proposed project is considered as a "de minimis significant permit revision", it is exempt from the public participation requirements under Rule 3006 (b). A proposed permit incorporating this permit revision will be submitted to EPA for a 45-day review pursuant to Rule 3003(j). If EPA does not have any objections within the review period, a revised Title V permit will be issued to this facility.